



- Ultra-Low ESR – 5 mΩ to 9 mΩ @ 100 kHz
- High Ripple current – up to 4.0 Arms at 100 kHz
- Long Life – No dry out failure related mechanism
- Stable Impedance and ESR vs. Temperature
- Great for bulk storage and ripple filtering
- Ignition free

Applications

Motherboard By-Pass

Switching Supply Input/Output Filters

Power Supply Decoupling

High Frequency Noise Reduction

Laptop LCD Displays

Automotive Digital Equipment

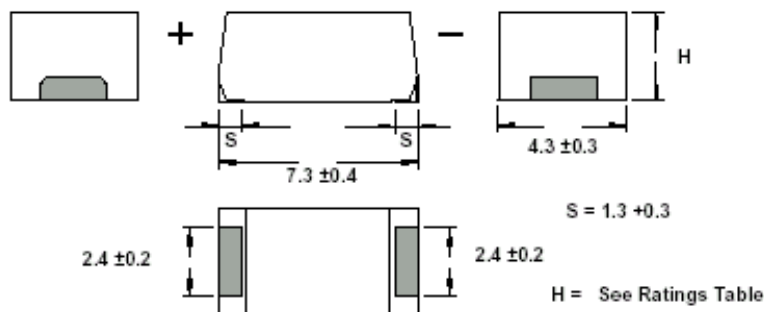
Portable Electronic Equipment

Specifications

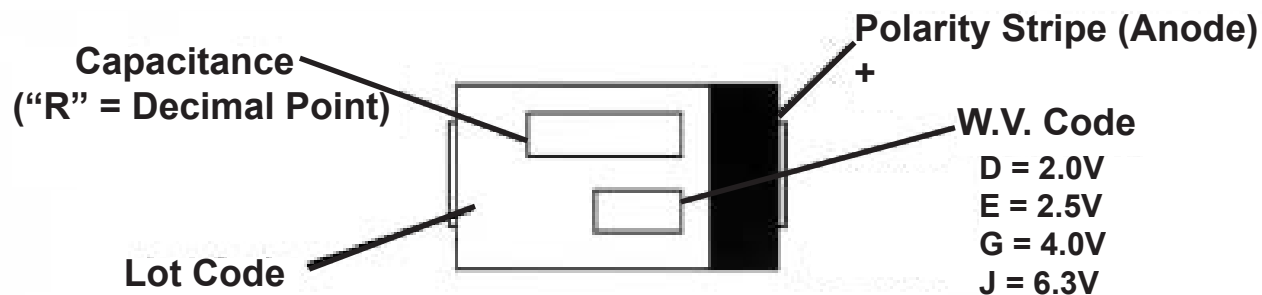
Operating Temperature:	-40 °C to +105 °C
Rated Voltage:	2 Vdc to 6.3 Vdc
Surge Voltage:	1.25 x Rated Voltage
Capacitance Range:	56 μF to 470 μF
Capacitance Tolerance:	±20% @120 Hz, +20 °C
Dissipation Factor:	0.06 max (1.8/1.9); 0.10 max (2.8/4.2) (Case "H" mm; 120 Hz +20 °C)
DC Leakage Current:	$I \leq 0.06 \text{ CV}$ after 2 minutes
Load Life:	1000 h @ 105 °C Δ Capacitance: ±10% of the initial measured value D.F. ≤ Initial specified value DCL ≤ Initial specified value

Type SPA Solid Polymer Aluminum SMT Capacitors

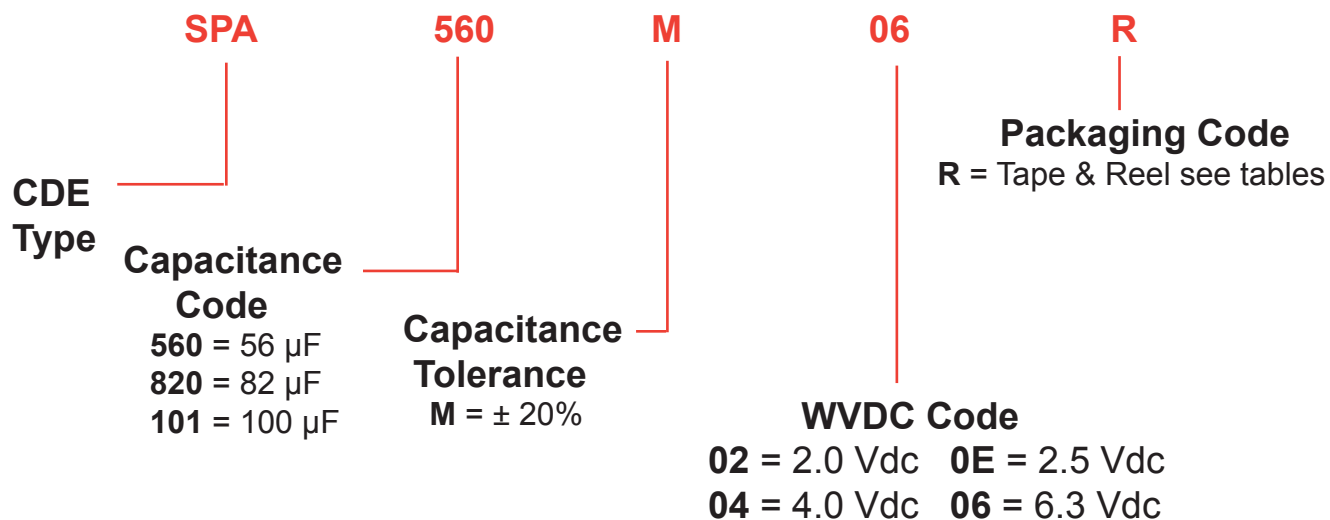
Outline Drawing



Markings



Ordering Information



Type SPA Solid Polymer Aluminum SMT Capacitors

Ratings

Capacitance (μF)	Catalog Part Number (Tape & Reel)	Maximum E.S.R. 100 kHz/20 °C (Ω)	Maximum Ripple Current 100 kHz/105 °C (A_{rms})	Case Height H (mm)	Qty/Reel
2.0 Vdc					
120	SPA121M02R	0.009	3.0	1.8 \pm 1	3500
150	SPA151M02R	0.009	3.0	1.8 \pm 1	3500
180	SPA181M02R	0.009	3.0	1.9 \pm 2	3500
270	SPA271M02R	0.007	3.5	2.8 \pm 2	2000
330	SPA331M02R	0.007	3.5	2.8 \pm 2	2000
390	SPA391M02R	0.005	4.0	4.2 \pm 1	2000
470	SPA471M02R	0.005	4.0	4.2 \pm 1	2000
2.5 Vdc					
100	SPA101M0ER	0.009	3.0	1.8 \pm 1	3500
120	SPA121M0ER	0.009	3.0	1.8 \pm 1	3500
150	SPA151M0ER	0.009	3.0	1.9 \pm 2	3500
220	SPA221M0ER	0.007	3.5	2.8 \pm 2	2000
270	SPA271M0ER	0.007	3.5	2.8 \pm 2	2000
330	SPA331M0ER	0.005	4.0	4.2 \pm 1	2000
390	SPA391M0ER	0.005	4.0	4.2 \pm 1	2000
4.0 Vdc					
82	SPA820M04R	0.009	3.0	1.8 \pm 1	3500
100	SPA101M04R	0.009	3.0	1.9 \pm 2	3500
150	SPA151M04R	0.007	3.5	2.8 \pm 2	2000
220	SPA221M04R	0.005	4.0	4.2 \pm 1	2000
6.3 Vdc					
56	SPA560M06R	0.009	3.0	1.8 \pm 1	3500
68	SPA680M06R	0.009	3.0	1.9 \pm 2	3500
120	SPA121M06R	0.007	3.5	2.8 \pm 2	2000
180	SPA181M06R	0.005	4.0	4.2 \pm 1	2000